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Submitted electronically to GC-62@hq.doe.gov

Mr. Paul A. Gottlieb, Assistant General Counsel
Technology Transfer and Intellectual Property
U.S. Department of Energy
1000 Independence Ave. S.W.
Washington, DC 20585

SUBJECT: Response to Notice of Inquiry: Technology Transfer Practices at Department of Energy Laboratories (73 FR 2036)

Dear Mr. Gottlieb:

Attached please find Battelle Energy Alliance, LLC's (BEA) responses to Department of Energy (DOE) inquiries. BEA, the managing and operating contractor of Idaho National Laboratory (INL), applauds your efforts to improve technology transfer at DOE's national laboratories. During BEA's tenure at the INL, BEA has had tangible success transferring technology that has created new products such as PACECO Corp.'s Nuclear Materials Detection System, Water Technology Group's Arsenic Removal Sorbent, Teledyne ISCO's Water Sample Concentrator, NorthStar's Medical Isotope for Cancer Therapy, and Xtreme Biochemicals' Cellulose to Ethanol Enzymes. These and other INL developed technologies are certain to improve the quality of life of U.S. citizens and enhance U.S. competitiveness.

BEA appreciates the opportunity to provide input on technology transfer practices at DOE national laboratories and input on how to identify ways to make technology transfer mechanisms more effective.

If you have any questions regarding our comments, please contact Brent Stacey, Acting Director of Technology Deployment, at (208) 526-7011.

Sincerely,

John J. Grossenbacher
Laboratory Director and
President, Battelle Energy Alliance, LLC

JCS:pmh

Attachment

cc: J. Alvarez, INL, MS 3695
D. J. Hill, INL, MS 3695
M. D. Olsen, INL, MS 3899
B. J. Stacey, INL, MS 3790

RESPONSES TO DEPARTMENT OF ENERGY INQUIRIES

Response to Federal Registrar Question #1: Recommended Improvements to the Existing Transactions and Recommended New Mechanisms

Based on the Idaho National Laboratory's (INL) experience in discussing and negotiating Work for Others (WFO) agreements and Cooperative Research and Development Agreements (CRADAs) with commercial entities, and User Agreements (UA) with universities, INL has observed that commercial entities and universities have concerns that very widely with respect to the terms and conditions in such agreements. The more common issues that are difficult to resolve include general and specific allocations of risks, choice of law and venue, confidentiality of information, and advanced funding requirements. Potential collaborators, sponsors typically, however, have different issues and concerns with the agreements. For example, a collaborator or sponsor, may readily accept the advanced funding requirements but object to the U.S. competitiveness clause, while another readily accepts the U.S. competitiveness clause but objects to the risk allocation clauses or the choice of law and venue clauses.

Because of the wide variability of concerns, flexible agreements are required to effectively work with collaborators and sponsors. Universities, government agencies, not-for-profit organizations and for profit companies that work with INL often have very different goals, objectives, and internal policies. The terms and conditions in WFOs and CRADAs are generally prescribed and reviewed by DOE. However, DOE is often reluctant to accept changes to the prescribed terms and conditions, creating a "take it or leave it" agreement that the National Laboratories must use with all types of collaborators and sponsors. In particular Private sector companies, or industrial or commercial entities, are accustomed to, and often require, a "give and take" approach to reach mutually acceptable agreements. DOE should consider allowing the INL to use flexible agreements that fit the different requirements of each technology transfer project. Such flexibility would greatly enhance the INL's ability to transfer the nascent technologies developed at US taxpayer expense to commercial entities. INL believes that increased flexibility by DOE with respect to existing transactional agreements will increase industry's engagement with INL in research, development, and deployment projects as well as participation in technology transfer activities.

In addition, INL has also noted that some potential industrial collaborators and sponsors desire fixed price contracts, completion of work prior to payment and insist on a greater allocation of risk to the contractor. To address such issues, INL encourages DOE to offer laboratory contractors a new flexible contracting mechanism to increase interaction with industry. The current suite of DOE approved transactional mechanisms are often viewed as rigid and cumbersome and do not always provide laboratory contractors the flexibility necessary to effectively work with industry. DOE could appropriately compensate laboratory contractors for entering into such contracts and provide contractors funds to recover the costs associated with managing the additional risk. Such a new transactional mechanism is likely to increase interaction with industry and further DOE's missions. Hence, INL encourages DOE to consider new trasactional mechanisms that would provide contractors the freedom to meet the requirements of DOE, DOE's laboratory contractors, and all of the various types of collaborators and sponsors when appropriate.

Response to Federal Registrar Question #2: Recommended Best Practices

One of the most significant barriers to transferring INL developed technologies to commercial entities is securing the funds to take a technology from a bench scale to a commercially viable prototype. Earlier stage technologies that have not been developed into fully functional and field tested prototypes are viewed as high risk by the commercial entity. Commercial entities are generally focused on short term earnings, so there is a reluctance to invest in these high risk projects that are not likely to provide a near term return on investment. While venture capitalists are willing to accept more risk, they are still reluctant to invest in startup companies based on a earlier stage technologies that have not been fully demonstrated or proven to be technically viable through commercially viable prototypes.

Thus, INL encourages DOE to expand programs that help reduce the risks associated with the deployment of laboratory developed technologies. DOE programs, such as DOE's Energy Efficiency and Renewable Energy (EERE) Technology Commercialization Fund significantly lessen the risks of investing in laboratory developed technologies. As a result, INL believes that industry would be more likely to invest in laboratory developed technology. INL, for example, has developed a portfolio of energy-related technologies that, if commercialized, would advance DOE's missions and have a profound impact on society and today's current energy problems. However, despite interest in these early stage technologies, no industry partner has been found that is willing to fund the development of a commercial prototype. These technologies would greatly benefit from programs like DOE EERE's Technology Commercialization Fund (TCF) program. Unfortunately, INL has not yet been selected to participate in the TCF program. INL encourages DOE to expand the TCF program to all National Laboratories, including INL. INL also encourages other DOE program offices to adopt similar programs to enhance technology transfer efforts for technologies outside of DOE EERE's missions.

Response to Federal Registrar Question #3: Recommended Changes to U.S. Competitiveness Requirements

With the globalization of many U.S. companies and the interdependence of material and product supply chains, it is becoming increasingly difficult for U.S. and foreign companies alike to agree to restrictions on domestic manufacturing as required under existing transactional agreements when commercializing INL developed technology. In addition, it is often advantageous for National Laboratories to work with foreign companies that are leaders in their fields. Many foreign companies are often reluctant to accept the U.S. competitiveness clauses required by DOE. This reluctance to accept the U.S. competiveness clause has prevented the INL from entering into collaborative agreements with both U.S. and foreign companies. Furthermore, the U.S. competitive requirements can impede commercialization efforts because new products, although unique, still have to be sold at competitive prices and the new products often require manufacturing of components that are too expensive to manufacture in the U.S.

INL recognizes the importance of focusing technology transfer efforts for the benefit of U.S. public. However, the U.S. competitive requirements as implemented sometimes impede technology transfer efforts that are beneficial to the U.S. public, regardless of whether or not the products are substantially manufactured in the U.S. DOE should consider removing such U.S. manufacturing requirements from transactional agreements and perhaps require companies to

agree to use best efforts to carry out commercialization efforts of National Laboratory developed technology in a manner that still provides benefits to the U.S. public.

Response to Federal Registrar Question #4: Recommended Disposition of Intellectual Property Rights in WFO Agreements

For technology transfer purposes, INL engages industry with the goals of ensuring that the public receives maximum benefit from the capabilities developed at INL. At present, WFO agreements generally require INL to offer the sponsor the right to elect title to inventions developed under a WFO agreement. As a result, INL has to consider the affect that such requirements will have on its programmatic and technology transfer and commercialization efforts. For example, INL may have developed a substantial portfolio of intellectual property in a particular technical area. If a potential sponsor wants to fully sponsor the research in the same technical area to address their own needs, INL has to consider whether additional intellectual property is likely to result from the work to be performed by INL under the WFO agreement and, if so, the negative effect that the sponsor's right to elect title to the intellectual property may have on INL's programmatic and commercialization strategies.

To address this and other problems, INL encourages DOE to allow DOE contractors the flexibility to choose to negotiate rights to elect title to subject inventions that result from WFO projects when the contractor deems it appropriate. Such a policy would enable contractors to better meet their technology transfer mission, providing contractors the ability to retain intellectual property rights to: 1) ensure that resulting inventions are available for licensing to other sponsors and collaborators that have an interest in commercializing the inventions, 2) ensure that the rights granted to a sponsor meet the sponsors' objectives and do not interfere with the laboratories' ongoing programmatic or commercialization efforts, 3) ensure that results are released to the public in a timely manner, and 4) ensure that the inventions are more fully commercialized in a timely manner to the benefit to the public. Alternatively, DOE is encouraged to consider providing an optional exception to the default position that sponsors retain intellectual property rights in circumstances where contractor's current commercialization efforts are likely to be negatively affected by intellectual property rights that arise under WFO agreements being owned by the sponsor.